

FINAL MINUTES

**Natural Heritage & Endangered Species Advisory Committee  
(NHESAC)**

May 10, 2018

DFW Field Headquarters, Southwest Meeting Room #103  
1 Rabbit Hill Road, Westborough, MA 01581

**MEMBERS:**

Present: Joseph Larson, Thomas Rawinski, Mark Mello

Absent: Gwilym Jones, Kathleen Anderson, Wayne Petersen

**ASSOCIATE MEMBERS:**

Present: Dave Small, Kevin Powers, Timothy Flanagan, William Brumback

Absent: Mark Pokras, Andy Finton, Bryan Windmiller

**AGENCY STAFF:**

Present: Tom French, Jesse Leddick

**OTHERS:** Jack Van Loan (Parker River Clean Water Association)

– The meeting was called to order at 1:37 p.m. –

**1. Approval of April Minutes**

Kevin Powers motioned that the April minutes be accepted, Dave Small seconded, and members voted unanimously to approve.

**2. Chair's Comments – Tom Rawinski began and ran the meeting until Mark Mello arrived and chaired in Kathleen Anderson's absence**

Tom mentioned that he recently observed pine barren management (fuel reduction & prescribed burning) in Concord, NH, similar to the work being done by MassWildlife. He also mentioned an upcoming deer impact monitoring workshop that he will be leading for MassWildlife and MassAudubon at Laughing Brook Wildlife Sanctuary in Hampden.

**3. Board Member's Comments – Joseph Larson**

Dr. Larson took the opportunity to mention the ongoing search for a new Director. Mark Tisa is presently the Acting Director. Recently retired Director, Jack Buckley, was honored at a nice party and roast.

Joe shared the April 10, 2018 letter he wrote to William J. Meehan II describing current work by the Division and Board to develop a statewide approach for the conservation of rattlesnakes. To be as thorough as possible, no firm deadline has been set for the completion of the work. The 300 questions submitted by the public have been classified into six broad categories and will be addressed soon.

Invitations have gone out for an all-day information sharing meeting and celebration of the 70<sup>th</sup> Anniversary of the Massachusetts Cooperative Fish and Wildlife Research Unit. This is a joint program of the Division, the Massachusetts Division of Marine Fisheries, the U.S. Geological Survey, the Wildlife Management Institute and the University of Massachusetts, Amherst.

#### **4. NHESP Report – Jesse Leddick**

- Jesse called attention to the MassWildlife prescribed burn schedule in members' packets. Recent burns were conducted at Penikese Island and Leyden WMA.
- A wildfire occurred recently at Bolton Flats WMA.
- The Division was approached by Fort Devens to possibly cooperate on prescribed burning projects.
- Regulatory review outreach included Wood Turtle identification.
- There was annual training for utility corridor specialists, which focused mostly on the Box Turtle.
- NRCS Review Biologist Rebecca Zimmer gave a presentation for the forestry community.

#### **5. Assistant Director's Report – Tom French**

- As Tom put it, there is a lot of shuffling going on within the Division because of recent and pending retirements.
- Coastal birds have returned to Ram and Tern Islands. Some Snowy Owls, from the second largest winter invasion in the past 40 years, remain in the state. Norman Smith banded an impressive total of over 90 Snowy Owls this year at Logan Airport. A Peregrine Falcon that formerly nested in Massachusetts was found dead in New Hampshire.
- Tom expressed growing concern for the disturbing levels of rodenticides being found in raptors. Rodents, sickened by these rat poisons, are easy prey for the raptors.
- Member packets included a letter from the American Bird Conservancy and a Washington Post article advocating for maintaining the Federal Bird-Safe Buildings Act and the Migratory Bird Treaty Act.
- The Division sent out a "Celebrate Endangered Species Day" press release.
- Lastly, in members' packets, there were articles about helping little brown bats, the Scott Melvin Memorial Fund, and a copy of the Division's attractive 2016 Annual Report.

#### **6. Terrain Analysis for Conservation – Tim Flanagan, Advisory Committee Associate Member, Berkshire Community College Professor of Environmental and Life Sciences**

Joe Larson had suggested to Tim that he give this presentation, to inform the Committee about the conservation applications of LIDAR (Light Imaging, Detection and Ranging). Tim explained that he had become quite proficient with LIDAR, utilizing what is readily available from MassGIS.

Conservationists often seek to understand relationships in heterogeneous landscapes. Many members could certainly relate as Tim described the “old” ways of field notes, topo maps, map & compass, and stereoscopic views of aerial photos. GIS revolutionized things, with much higher resolution being available for the last 15 years. Smart phones now also have GIS capability.

LIDAR analyzes the speed at which emitted laser light is returned from every square meter of the landscape – amazing technology!

Tim focused his presentation on the October Mountain/Housatonic Valley region of Berkshire County. Complex algorithms generate such things as topographic wetness index and digital elevation models. The resolution is so fine that one might conceivably analyze a rattlesnake’s rocky habitat for potential den sites. And, for potential regulatory review of streams, LIDAR reveals channel networks far better than the channels hand-drawn on topo maps by cartographers.

Future applications from LIDAR to landscape ecology are many - quantifying habitat patches, edges, ecotones, boundaries, disturbance features, fragmentation, and the like. During the presentation, Bill Brumback commented that a potential application would be to search out potential ledge habitats along the Connecticut River where Jessup’s Milk-vetch might grow.

Tim’s wonderful teaching talents were on display. He presented information in a way that even the older members could understand.

## **7. Member’s and Associate Member’s Comments**

**Bill Brumback** – Biotechnology might someday be able to generate a cross between an elephant and the extinct Woolly Mammoth. In the plant world, it might be easier to resurrect a cross with the extinct Robbins’ Milk-vetch (*Astragalus robbinsii* var. *robbinsii*), formerly known from the ledges of the Winooski River in Vermont. Such advances in biotechnology present serious ethical considerations.

**Tom Rawinski** – Tom reported on a deer presentation that he gave in Ithaca, NY last month. He was also proud to announce that his son Peter would be working for the Division this summer conducting fish surveys.

**Mark Mello** – Mark is in the process of transferring his moth collection to Harvard, although he will keep in his possession specimens of MESA-listed species. He also mentioned that the Bald Eagle nest along the Westport River is down, but eagle activity has been observed along the Slocum River, where an eagle was observed stealing a fish from an Osprey.

**Kevin Powers** – Kevin passed around a good book, *Insects of New England and New York*, by Tom Murray: <https://elizabethwinpennylawson.com/tag/insects-of-new-england-new-york/>  
**Dave Small** – A May 19 program on Whip-poor-wills will be held at the Montague Pine Barrens. The planned prescribed burn at Muddy Brook WMA was rained out, unfortunately.

– The meeting adjourned at 3:55 P.M. –

Drafted & Submitted by: Thomas J. Rawinski, Secretary